California Administrative Code

Title 20,

Chapter 2. STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

Subchapter 4. ENERGY CONSERVATION

Article 3. Energy Conservation Standards for Gas Appliance Intermittent Type Ignition Devices

and

Article 4. Appliance Efficiency Standards

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The regulations reproduced here are current as of March 1977.

Article 3. Energy Conservation Standards for Gas Appliance Intermittent Type Ignition Devices

1551. General Provisions. (a) **Purpose.** The purpose of this article is to develop the specifications for certification of applicances equipped with intermittent type ignition devices and to prohibit continuously burning pilot lights on selected new residential gas appliances sold in California in order to conserve gaseous fuel.

(b) **Application and Scope.** The provisions of this article are applicable to the following types of gas appliances:

(1) All gas-fired forced air central furnaces except those designed to burn only liquified petroleum gas.

(2) All gas clothes dryers except those designed to burn only liquified petroleum gas.

(3) All household cooking gas appliances except those designed to burn only liquified petroleum gas, or those which do not have an electrical line voltage supply cord and have three or less continuously burning pilot lights.

(4) All gas-fired swimming pool heaters.

(5) All gas-fired low-pressure steam and hot water heating boilers designed for use on swimming pools and outdoor installation. For purposes of subsection (c) (1), this appliance shall be considered the same type of appliance as gas-fired swimming pool heaters.

(6) All gas-fired fan type direct vent and vented wall furnaces except those designed to burn only liquified petroleum gas.

(c) **Prohibition of Distribution, Sales and Installation.** (1) No person shall cause to be distributed, sold, or installed in this state a newly produced gas appliance which has not been certified by the commission. This prohibition shall not take effect for any particular type of gas appliance until 24 months after at least one model of that type of appliance has been certified by the commission.

(2) All gas appliances certified by the commission shall have the statement, "This appliance is equipped with an intermittent type ignition device" on the rating plate.

NOTE: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25950–25968, Public Resources Code.

History: 1. New Subchapter 4, Article 3 (Sections 1551–1558) filed 4-13-76; effective thirtieth day thereafter (Register 76, No. 16).

1552. Definitions. For the purpose of this article and unless otherwise indicated, the following definitions shall apply.

(a) **"Accepted laboratory"** means any testing laboratory approved by the commission for testing of a particular type of appliance.

(b) **"Intermittent type ignition device"** means any ignition system on a gas appliance which is not a continuously burning gas pilot light.

(c) **"Newly produced"** means not previously used for the purpose for which designed or any other related purpose and constructed entirely of new unused parts and materials.

(d) **"Rating plate"** means a plate, or combination of adjacent plates located so as to be easily read when the appliance is in a normally installed position.

1553. Gas-Fired Forced Air Central Furnaces. (a) Except as otherwise provided, all intermittent type ignition devices used on a gas-fired forced air central furnace shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on August 4, 1975, known as: ANSI Z21.20-1975.

(b) Except as otherwise provided, gas-fired forced air central furnaces shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on April 19, 1973, known as: ANSI Z21.47-1973, and addenda approved on May 13, 1974, known as: ANSI Z21.47a-1974, and addenda approved on September 22, 1975, known as: ANSI Z21.47b-1975.

1554. Household Cooking Gas Appliances. (a) Except as otherwise provided, all intermittent type ignition devices used on a household cooking gas appliance shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on August 4, 1975, known as: ANSI Z21.20-1975.

(b) Except as otherwise provided, household cooking gas appliances shall be tested by an accepted laboratory and shall be certified by the commission, if they comply with the standards approved by the American National Standards Institute, Inc. on February 12, 1974, known as: ANSI Z21.1-1974, and the addenda approved on November 25, 1974, known as: ANSI Z21.1a-1974.

1555. Gas Clothes Dryers. (a) Except as otherwise provided, all intermittent type ignition devices used on gas clothes dryers shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on August 4, 1975, known as: ANSI Z21.20-1975.

(b) Except as otherwise provided, gas clothes dryers shall be tested by an accepted laboratory and shall be certified by the commission, if they comply with the standards approved by the American National Standards Institute, Inc. on August 4, 1975, known as: ANSI Z21.5.1-1975.

1556. Gas-Fired Swimming Pool Heaters. (a) Except as otherwise provided, all intermittent type ignition devices used on a gas-fired swimming pool heater shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on August 4, 1975, known as: ANSI Z21.20-1975.

(b) Except as otherwise provided, gas-fired swimming pool heaters shall be tested by an accepted laboratory and shall be certified by the commission, if they comply with the standards approved by the American National Standards Institute, Inc. on November 25, 1974, known as: ANSI Z21.56-1974, and addenda approved on October 7, 1975, known as: ANSI Z21.56a-1975.

1557. Gas-Fired Low Pressure Steam and Hot Water Heating Boilers. (a) Except as otherwise provided, all intermittent type ignition devices used on a gas-fired low pressure steam and hot water heating boiler designed for use on swimming pools and for outdoor installation shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on August 4, 1975, known as: ANSI Z21.20-1975.

(b) Except as otherwise provided, gas-fired low pressure steam and hot water heating boilers designed for use on swimming pools and for outdoor installation shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on August 12, 1974, known as: ANSI Z21.13-1974, and addenda approved on February 13, 1976, known as: ANSI Z21.13a-1976.

1558. Gas-Fired Fan Type Direct Vent and Vented Wall Furnaces. (a) Except as otherwise provided, all intermittent type ignition devices used on a gas-fired fan type direct vent and vented wall furnace shall be tested by an accepted laboratory and shall be certified by the commission if they comply with the standards approved by the American National Standards Institute, Inc. on August 4, 1975, known as: ANSI Z21.20-1975.

(b) Except as otherwise provided, gas-fired fan type direct vent and vented wall furnaces shall be tested by an accepted laboratory and shall be certified by the commission if they comply with either the standard approved by the American National Standards Institute, Inc. with title "Gas-Fired Gravity and Fan Type Vented Wall Furnaces", approved on March 25, 1975, known as: ANSI Z21.49-1975, or the standard approved by the American National Standards Institute, Inc. with title "Gas-Fired Gravity and Fan Type Direct Vent Wall Furnaces", approved on April 9, 1973, known as: ANSI Z21.44-1973, and addenda approved on March 21, 1974, known as: ANSI Z21.44a-1974, and addenda approved on March 25, 1975, known as: ANSI Z21.44b-1975.

Status as of March 1977

Section 1551 refers to an effective date "24 months after at least one model of that type of appliance has been certified by the commission."

The following are the dates of certification and effective dates of the regulations.

Appliance	Certification Date	Effective Date
Gas-Fired Forced Air Central Furnaces	July 8, 1976	July 8, 1978
Household Cooking Gas Appliances		
Gas Clothes Dryers	February 10, 1977	February 10, 1979
Gas-Fired Swimming Pool Heaters	no certification yet	
Gas-Fired Low Pressure Steam and Hot Water Heating Boilers		
Gas-Fired Fan Type Direct Vent and Vented Wall Furnaces		

1603. Test Methods. (a) The manufacturer shall cause the testing of samples of each model of refrigerator, refrigerator-freezer and freezer, to be sold in California.

(1) Fresh food refrigerated volume, freezer refrigerated volume, total refrigerated volume and shelf area shall be measured using the American National Standard Methods of Testing for Household Refrigerators, Combination Refrigerator-Freezers and Houshold Freezers, approved by the American National Standards Institute on May 6, 1969, known as ANSI B 38.1-1970.

(2) The energy consumption shall be measured using the standard test procedure approved by the Association of Home Appliance Manufacturers, in July 1975, known as HRF-2-ECFT.

(3) When manually operated anti-sweat switches are provided, the values of energy consumption shall be determined with these switches set at their highest energy consuming position.

(b) The manufacturer shall cause the testing of samples of each model of room air conditioner and room air conditioning heat pump to be sold in California. The cooling capacity, electrical input and energy efficiency ratio (EER) of packaged terminal air conditioners shall be measured using the test procedure approved by the Air-Conditioning and Refrigeration Institute in 1976, known as ARI 310-76. The cooling capacity, electrical input and energy efficiency ratio (EER) of all other room air conditioners and room air conditioning heat pumps shall be measured using the standard for room air conditioners, approved by the American National Standards Institute, Inc. on December 21, 1972, known as ANSI Z234.1-1972.

(c) The manufacturer shall cause the testing of samples of each model of central air conditioner and central air conditioning heat pump to be sold in California.

(1) The cooling capacity, electrical input and energy efficiency ratio of central air conditioners and central air conditioning heat pumps shall be measured using the following test procedures: central air conditioning heat pumps shall be tested using the test procedure approved by the Air-Conditioning and Refrigeration Institute in 1976, known as ARI 240-76; all other central air conditioners shall be tested using the test procedure approved by the Air-Conditioning and Refrigeration Institute in 1975, known as ARI 210-75.

(2) When a central air conditioner consists of more than one assembly, the assemblies shall be designed to be used together, and the requirements of rating shall be based upon use of matched assemblies.

1604. Minimum Allowable Efficiency. (a) The energy consumption of all new refrigerators, refrigerator-freezers and freezers, sold or offered for sale in California on or after the date specified in Table A shall be certified not to exceed the values derived from the appropriate formulae where V is the total refrigerated volume (cubic feet) and EC is the energy consumption (kWh per month):

Table A

Effective Date	*Appliance*	*Formula*
November 3, 1977	Refrigerators	EC = 40 + 2.5V
	Refrigerator-freezers and freezers	
	(a) with automatic defrost system	EC = 40 + 7V
	(b) all others	EC = 40 + 5V
November 3, 1979	Refrigerators	EC = 40 + 2.5V
	Refrigerators-freezers	
	(a) with automatic defrost system	EC = 40 + 5V
	(b) all others	EC = 40 + 4V
	Freezers	
	(a) upright freezers with automatic defrost systems	EC = 40 + 6V
	(b) all others	EC = 40 + 4V

(b) The energy efficiency ratio of all new air conditioners sold or offered for sale in California on or after the date specified in Table B shall be certified to be not less than the values shown.

Table B

Effective Date	*Appliance*	*EER*
November 3, 1977	Room air conditioners	
	• those with cooling capacity equal to or greater than 20,000 Btu/hour	7.0
	• other heat pumps	7.1
	• all other room air conditioners	7.5
	Central air conditioners	
	heat pumps	6.7
	all others	7.0
November 3, 1979	Room air conditioners	
	• those designed for use with a supply of at least 200 volts	8.2
	• other heat pumps	8.3
	• all other room air conditioners	8.7
	Central air conditioners	
	heat pumps	7.5
	all others	8.0

Article 4. Appliance Efficiency Standards

1601. Scope. Unless otherwise indicated, the provisions of this article shall apply to the following types of new appliances sold in California:

(a) Refrigerators, refrigerator-freezers, and freezers, which are directly operated by electricity.

(b) Room air conditioners, excluding those designed expressly for use in mobile homes, recreational vehicles and other mobile equipment.

(c) Central air conditioners, with a capacity of less than 65,000 Btu per hour excluding those designed expressly for use in mobile homes, recreational vehicles and other mobile equipment.

The provisions of this article shall not apply to new appliances manufactured in California, but sold outside the State.

Nothing in this article shall be construed as limiting the jurisdiction of the Commission to regulate industrial and commercial appliances, gas appliances or any other types of appliance.

NOTE: Authority cited for Article 4 (Sections 1601–1606, inclusive): Section 25213 and 25218(e), Public Resources Code. Reference: Section 25402(c), Public Resources Code.

History: 1. New Article 4 (Sections 1601–1606) filed 11-19-76; effective thirtieth day thereafter (Register 76, No. 47).

1602. Definitions. For the purpose of this article the following definitions shall apply:

(a) **General.** "Manufacturer" means any person engaged in the production or assembly of an appliance. Manufacturer also includes any person whose brand or trademark appears on such appliance, if the brand or trademark of the person actually producing or assembling the appliance does not appear on the appliance.

(b) **Refrigerators and Freezers.**

(1) "Automatic defrost system" means a defrost system in which the defrosting action for all refrigerated surfaces is initiated and terminated automatically.

(2) "Freezer" means a cabinet designed as a unit for the storage of food at temperatures of about 0° F, having the ability to freeze food, and having a source of refrigeration requiring an energy input.

(3) "Manual defrost system" means a defrost system in which the defrosting action for all refrigerated surfaces is initiated manually.

(4) "Partial automatic defrost system" means a defrost system in which the defrosting action for the refrigerated surfaces in the refrigerator compartment is initiated and terminated automatically and the defrosting action for the refrigerated surfaces in the freezer is initiated manually.

(5) "Refrigerator" means a cabinet designed for the refrigerated storage of food at temperatures above 32° F, and having a source of refrigeration requiring an energy input. It may include a compartment for the freezing and storage of food at temperatures below 32° F, but does not provide a separate low temperature compartment designed for the freezing of and the long-term storage of food at temperatures below 8° F. It has only one exterior door, but it may have interior doors on compartments.

(6) "Refrigerator-freezer" means a cabinet which consists of two or more compartments with at least one of the compartments designed for the refrigerated storage of foods at temperatures above 32° F, and with at least one of the compartments designed for the freezing of and the storage of frozen foods at temperatures of 8° F or below. The source of refrigeration requires energy input.

(7) "Upright freezer" means a freezer whose access door is at the front of the appliance.

(c) **Air Conditioners.**

(1) "Air conditioner" means one or more factory made assemblies which include an evaporator or cooling coil and an electrically driven compressor and condenser combination, and may include a heating function.

(2) "Central air conditioner" means an air-conditioner which is not a room air conditioner.

(3) "Central air conditioning heat pump" means a central air conditioner which is capable of heating by refrigeration.

(4) "Cooling capacity" means a measure of the ability of a unit to remove heat from an enclosed space under test conditions specified in Section 1603(b) and (c) of these regulations.

(5) "Energy efficiency ratio (EER)" means the ratio of the cooling capacity of the air conditioner in British thermal units per hour, to the total electrical input in watts under test conditions specified in Section 1603(b) and (c) of these regulations.

(6) "Packaged terminal air conditioner" means a room air conditioner consisting of a factory-selected combination of heating and cooling components, assemblies or sections, intended to serve an individual room or zone and constructed in a manner which complies with the definition contained in the Standard for Packaged Terminal Air Conditioners approved by the Air-Conditioning and Refrigeration Institute in 1976, known as ARI 310-76.

(7) "Room air conditioner" means a factory encased air-conditioner designed as a unit for mounting in a window or through a wall, or as a console. It is designed for delivery of conditioned air to an enclosed space without ducts.

(8) "Room air conditioning heat pump" means a room air conditioner, which is capable of heating by refrigeration.

(9) "Split system central air conditioner" means a central air conditioner consisting of two major components; a compressor-containing unit, normally installed outside the building, and a non-compressor-containing unit, normally installed within the building.

(c) In verification of certified data submitted pursuant to this article, the following tolerance limits shall be allowed:

Appliance	*Characteristic*	*Tolerance Limits (percent of certified value)*
Refrigerators Refrigerator-Freezers Freezers	Volume	Not less than 98.5 percent
	Energy Consumption	Not more than 110 percent
Room air conditioners (including heat pumps and packaged terminal air conditioners)	Cooling capacity	Not less than 95 percent
	Energy consumption	Not more than 110 percent
Central air conditioners (including heat pumps)	Cooling capacity	Not less than 95 percent
	Energy consumption	Not more than 105 percent

1605. Certification. (a) After November 3, 1977, no new appliance described in Section 1601 of these regulations shall be sold or offered for sale in California, which is not certified by its manufacturer to be in compliance with the provisions of this article.

A split system central air conditioner, or a compressor-containing unit, may be sold if, and only if, the manufacturer of the compressor-containing unit certifies that that unit, when tested with at least one non-compressor-containing unit, is in compliance with the provisions of this article.

(b) The manufacturer shall submit a certification statement to the executive director for each model, containing the following information, except as provided in Subsection (c):

(1) Name and address of manufacturer.
(2) Type of appliance.
(3) Brand name.
(4) Model number, as it appears on the appliance name plate.
(5) Name and address of laboratory where test for efficiency was performed.
(6) Date of test for efficiency.
(7) Results of the test for efficiency as follows:

(A) Refrigerators and freezers

1. Energy consumption (kilowatt-hours per month).
2. Fresh food refrigerated volume (in cubic feet).
3. Freezer refrigerated volume (in cubic feet).
4. Total refrigerated volume (in cubic feet).

(B) Air conditioners

1. Type (room or central, heat pump or cooling only).
2. Test procedure used.
3. Cooling capacity (Btu per hour).
4. Current, while cooling (ampere).
5. Power input, while cooling (watts).
6. Energy efficiency ratio (Btu per watt-hour).

(8) A declaration that the appliance model complies with Article 4, Subchapter 4, of Title 20, of the California Administrative Code.

The executive director may, at his discretion, prescribe a standard form for the certification statement.

(c) The manufacturer may, at his discretion, submit the following information in his certification statement in place of the information described in subsection (b) (3) through (7) inclusive of this section.

(1) A copy of those parts of the latest directory published by either the Association of Home Appliance Manufacturers or the Air-Conditioning and Refrigeration Institute which apply to the manufacturer's models. Each model being certified shall be clearly identified on the directory pages.

(2) A copy of the sales literature used in California describing each model being certified. If the model number in the sales literature is not identical to the model number identified in the directory, the manufacturer shall indicate which model number in the directory corresponds with the model number in the sales literature.

(d) Every certification statement shall be dated and signed by the manufacturer attesting to its truth and accuracy under penalty of perjury. Where the manufacturer is either a corporation or a business association, the certification statement shall be dated, signed and attested to by an officer thereof.

(e) Within 45 days after receipt of a certification statement, the executive director shall forward, to the manufacturer, an acknowledgement that the statement has been received and that it is complete and accurate on its face.

(f) For purposes of subsection (a), certification of a model shall be deemed to occur upon forwarding of the acknowledgement by the executive director. If acknowledgement is not forwarded in a timely manner, certification shall be deemed to occur on the 45th day after receipt of the certification statement.

1606. Enforcement. (a) Notwithstanding, the provisions of Section 1605, of these regulations, the executive director shall have authority to challenge the efficiency test results provided by the manufacturer and cause the appliance model to be retested.

(b) The executive director shall cause periodic inspections to be made of manufacturers, distributors or retailers of the new appliances described in Section 1601 of these regulations, including appliances that have been or are to be installed by contractors or builders at building sites, in order to determine their compliance with this article.

Excerpt From California Public Resources Code

With Changes Proposed by Assembly Bill 1316

Section 25402(c)

25402. Within 18 months after the effective date of this division (January 7, 1975), the commission shall, after one or more public hearings, do all of the following, in order to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy:

(c) By regulation, prescribe standards for minimum levels of operating efficiency, based on a reasonable use pattern, for all appliances whose use, as determined by the commission, requires a significant amount of energy on a statewide basis. Such minimum levels of operating efficiency shall be based on feasible and attainable efficiencies or feasible improved efficiencies which will reduce the electrical energy consumption growth rate. ~~One-year-after-the-date-of-the-adoption-of-such-standards,-no-new appliance may be sold or offered for sale in the state which is not certified by the manufacturer thereof to be in compliance with such standards.~~ Such standards shall become effective no sooner than one year after the date of adoption or revision. No new appliance manufactured on or after the effective date of such standards may be sold or offered for sale in the state, unless it is certified by the manufacturer thereof to be in compliance with such standards. One year after the effective date of such standards, no new appliance, regardless of the date of manufacture, may be sold or offered for sale in the state unless it is certified by the manufacturer thereof to be in compliance with such standards. Such standards shall be drawn so that they do not result in any added total costs to the consumer over the designed life of the appliances concerned.